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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,460	12/05/2003	Tatsufumi Kusuda	P/1250-267	1303

2352 7590 04/19/2004

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NEW YORK, NY 100368403

EXAMINER

FUQUA, SHAWNTINA T

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/729,460	KUSUDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shawntina T. Fuqua	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/26/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 3, 5-7, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al (US4958061) in view of Grant et al (US5228206).

Wakabayashi et al discloses a heat treatment apparatus/method for heating a substrate comprising a light source (26), a chamber (10) under light source (Figure 1), a susceptor (18), a lifting mechanism for lifting substrate on susceptor, a lift control element for controlling the lifting mechanism before irradiation to lift substrate and to stop operation of the lifting mechanism at irradiation and to cause a gas layer to be sandwiched between substrate and susceptor so the substrates floats (column 4, lines 27-56; column 5, line 36-column 6, line 25), the lifting mechanism includes support pins which move above and below the susceptor (column 4, lines 35-39), an elevating mechanism for moving support pins up and down (column 4, lines 35-39), and a lift mechanism includes a gas discharging mechanism for discharging gas from the upper surface of the susceptor towards the substrate (column 4, lines 26-56). Wakabayashi et al does not disclose flash lamps as a light source. Grant et al discloses flash lamps as a light source (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention

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was made to have replaced the lamps of Wakabayashi et al with the flash lamps of Grant et al because, flash lamps provide for a uniform distribution over the substrate.

3. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al in view of Grant et al as applied to claims 1-3 and 5 above, and further in view of Okase et al (US6399922).

Wakabayashi et al in view of Grant et al discloses all of the recited subject matter except preheating the substrate to a predetermined temperature. Okase et al discloses preheating the substrate to a predetermined temperature (44; column 6, lines 6-9; column 8, lines 11-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the cooling member in the susceptor of Wakabayashi et al with the heating element of Okase et al to preheat the substrate because, preheating the substrate prevents slip line deformation of the substrate.

4. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al in view of Grant et al as applied to claims 9 and 11 above, and further in view of Kuznetsov et al (US6329304).

Wakabayashi et al in view of Grant et al discloses all of the recited subject matter except irradiating the heat source within seventy seconds. Kuznetsov et al discloses irradiating the heat source within seventy seconds (column 4, lines 2-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included irradiating the heat source within seventy seconds as taught by Kuznetsov et al because, irradiating the heat source within seventy seconds allows the substrate processing production to be increased.

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*Conclusion*

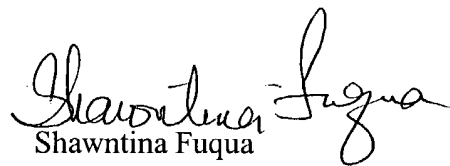
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (703) 305-2581.

The examiner can normally be reached on Monday-Friday 8-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on (703) 308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

stf  
April 17, 2004

  
Shawntina Fuqua  
Patent Examiner  
Art Unit 3742